

2/PARTS

specification  
Title

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TELECOMMUNICATION TERMINAL> Background of the invention

The invention relates to a telecommunication terminal with a transmission/reception part, at least one microprocessor, an input device, as well as with an optical and/or acoustic display, whereby the microprocessor has a menu structure with options, which can be called and/or changed on the part of the user via the input.

Description of the Related Art

*the type described in the foregoing*

- 1 Given modern telecommunication terminals of ~~this type~~, particularly mobile radio devices, for example according to the GSM system, extensive and highly branched menu structures are provided, so that the user can select the corresponding options from a plurality of menus and submenus. Examples for such options are the selection of the dial tone volume, a telephone intensity, a modification of pin codes, call number display, network selection, call meter, charge meter, etc.. Due to the many options, not only the operation manuals for modern cellular phones have become extremely extensive but it is extremely difficult for the average user to find a desired option in a fast way, whereby there is always the danger that unintended, serious changes are often undertaken with respect to adjustments, which can hardly be reversed by the user, due to an unsystematic course of action.
- 20 The operator's manual "Ihr E-Plus Handy PT-11 stellt sich vor!"; E-Plus Mobilfunk GmbH, 40476 Duesseldorf, 9350425 Issue 3, pages 35, 48, 62 and 63, discloses a portable mobile radio device, whereby individual options of a menu structure are allocated to numerals. Options can thereby be called either via menu keys or, respectively, selection keys or via the key field in that the numerals are directly inputted.
- 25 The invention is based on the object of enabling the user of a telecommunication terminal to quickly access desired options without having to know the exact menu structure.

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On the basis of a telecommunication terminal of the aforementioned type, this object is inventively achieved in that a memory table having catch-words is set up and each catch-word is allocated to an option, whereby the catch-words of the memory table can be selected via the input, and the option can be immediately called and/or changed  
5 after the catch-word has been selected by its confirmation.

As a result of the invention, the user must no longer scroll with the aid of soft keys for a long time until he reaches the desired menu levels or sub-levels but he must merely confirm a selected key word in order to reach the allocated option. The user  
10 prompting is thus significantly facilitated.

It is advantageous when the catch-words of the memory table can be selected via alphanumerical input keys and/or scroll keys. A combination of these keys will be mostly applied, for example when there are several catch-words under an initial letter.  
15 Another expedient version is characterized in that at least parts of the memory table can be freely edited via the input. As a result thereof, the user can give the menu options names of his choice in order to be able to find it faster with respect to a new search of catch-words, since he can remember it better than the name given by the  
20 factory.

The invention is particularly advantageous when the terminal is a DECT and/or GSM hand device.  
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25 The invention including further advantages is subsequently explained in greater detail on the basis of an exemplary embodiment and upon reference to the drawing. Shown are:

Figure 1<sup>15</sup> a menu structure utilized for explaining an exemplary embodiment of the  
30 invention; however, only as an extract,

Figure 2 <sup>is</sup> a simplified block diagram of a mobile radio telephone according to the invention, and

Show

Figure 3-7 the display or, respectively, key actuation at a mobile radio telephone given the menu prompting according to the invention.

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The invention, which generally relates to a telecommunication terminal, is explained by using a mobile radio device, namely a wireless telephone, as an example, which works according to the DECT standard. According to Figure 2, it has at least one audio part AUD, a display ANZ, for example a LCD display and a key input TAS with keys that can be illuminated, in addition to a transmission-reception part HFT.

As known, the microprocessor has various controlling functions and processing functions, and it also has a menu structure having a mostly large number of options implemented, which relate to adjustable device properties, services of the network operator, etc.. For example, these are the selection of the dial tone melody, the dial tone volume, display illumination, key click, message adjustments, modification of <sup>PIN</sup> pin codes, call meter, voice selection, network selection, etc.. The number of such options can easily be 50 to 100 for conventional GSM mobile radio telephones or GSM wireless devices. The options are classified in a menu structure, whereby submenus are also provided in addition to main menus according to a tree structure.

According to the invention, a memory table LIS having key words is set up, whereby a key word is allocated to each option. An extract from a menu structure with, for example, 15 menus and more than 70 options could look like as represented in Figure 1.

Such menu structures are also conventional with respect to what are referred to as "handys" <sup>or Cordless phones</sup> e.g. GSM devices, also with respect to multiple system devices, e.g. "dual

mode handys" so that the invention is particularly advantageous with respect to all these devices.

For example, if the user wishes to change the option "key click", he will reach  
5 "adjustments" in that he presses the scroll key  $\nabla$  twice given traditional devices. He reaches the menu 5 when the key "OK" is pressed; here, by pressing the scroll key  $\nabla$  twice, he arrives from "receiver volume" at "local adjustment"; by pressing the "OK" key, he reaches the menu 10 and arrives here from "voice" at "tones" by pressing the scroll key  $\nabla$  twice. After the key "OK" has been pressed, the user is situated in menu  
10 14, and, by pressing the scroll key  $\nabla$  once, he arrives from the first option of this menu at the following, the option "key click".

Given a terminal according to the invention, the user, proceeding from the situation according to Figure 3, presses the menu key "F" in order to reach the main menu  
15 (menu 1). He presses now (Figure 4) the "OK" key for the first position of the main menu "index" and then the user can press the key "TUV/8" (Figure 5) in order to reach the letter "T", and the display according to Figure 6 appears. The scroll keys " $\nabla$ " and " $\Delta$ " can also be used in the index in order to arrive at the desired key word , which is "key click" here.

20 According to Figure 6, the key word "key click" is now at the first position and/or is particularly emphasized by blinking, for example. The user must now not initiate anything but must merely confirm the option "key click", for example, in that he presses the "OK" key, whereupon the microprocessor directly leads into this position  
25 of the menus 14 (see Figure 7). The user can now confirm  $\overline{\text{AUS}}$ , whereby it took him - compared to traditional devices - only a fraction of the time.

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*Abstract of the disclosure*

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Telecommunication terminal

- 5 A telecommunication terminal with at least a microprocessor (MIP), an input device (TAS) and an optical and/or acoustic display (ANZ), whereby the microprocessor has a menu structure with options, which can be called and/or modified on the part of the user via the input, and a memory table (LIS) having catch-words is set up and each catch-word has an option allocated, whereby the catch-words of the memory table can
- 10 be selected via the input (TAS), and the options can be immediately called and/or modified after the catch-word has been selected by its confirmation.

Figure 2